

REMARKS

Claims 1-5 and 8-12 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 112

Claims 1-7 and 11 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

The Examiner alleges that claims 1-7 and 11 are indefinite because they are in an improper method claim format. Notwithstanding, Applicant has amended claims 1-5 and 11 so that these claims are in a proper method claim format. With respect to claims 6 and 7, these claims have been cancelled.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 102

Claims 1 and 11 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Mizutani et al (U.S. Pat. No. 6,439,712). This rejection is respectfully traversed.

Claim 1 recites a method for discharging a liquid material comprising discharging a liquid material onto a substrate from a discharging apparatus having a discharging head which discharges the liquid material. Claim 1 also recites providing an ionized wind onto the substrate. The step of providing the ionized wind is performed at least

after discharging the liquid material onto the substrate. Mizutani fails to anticipate such a method.

Specifically, Mizutani fails to teach a method wherein an ionized wind is provided onto the substrate. In contrast, Mizutani merely teaches the blowing of hot air towards a substrate. The blowing of hot air, however, falls short of the claimed step of providing an ionized wind onto the substrate. Because Mizutani is completely silent with respect to an ionized wind, claim 1 is not anticipated.

Moreover, it should be noted that the claimed constituent elements which are easily electrostatically charged and provided on a substrate are not disclosed in Mizutani. As such, there is no motivation to provide an ionized wind onto the recording paper as taught by Mizutani because it is unnecessary. Further, Mizutani is related to an ink jet recording apparatus that discharges ink liquid from its orifices and causes it to adhere to a recording medium for the formation of images thereon. In contrast, the present invention is directed to a discharging apparatus for manufacturing devices such as a color filter. Because the inventing of the claimed invention and those of Mizutani are completely different, Applicant respectfully asserts that Mizutani does not anticipate the claimed invention.

Accordingly, reconsideration and withdrawal of this rejection of this rejection is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 2-5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizutani et al (U.S. Pat. No. 6,439,712) in view of Makoto (JP 11-281810). This rejection is respectfully traversed.

Claims 2-5 are dependent on independent claim 1, addressed above. Because Mizutani fails to anticipate the method of claim 1, it would not have been obvious to combine the teachings of Mizutani with the teachings of Makoto to arrive at the subject matter of dependent claims 2-5. Accordingly, Applicant respectfully asserts that these claims would not have been obvious.

Moreover, as discussed above, Mizutani relates to a so-called ink-jet printer for printing images onto a recording medium such as paper. Makoto is directed to preparing color filters. Therefore, the technological field of Mizutani is completely different from that of Makoto et al. As such, there is no motivation to combine the manufacturing method and the manufacturing apparatus for a color filter disclosed in Makoto et al. into the method as taught by Mizutani.

Claims 6-8 and 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Makoto (JP 11-281810) in view of Akahira (U.S. Pat. No. 5,847,723). This rejection is respectfully traversed.

At the outset, Applicant respectfully asserts that claims 6 and 7 are cancelled. Accordingly, the rejection of these claims is moot. With respect to claims 8 and 12, however, claim 8 has been amended to recite a unique feature in that an ionized wind is provided onto a substrate at least after a discharging head discharges a liquid material onto a substrate. In contrast, Makoto et al. discloses, as shown in Figure 4, a

manufacturing method and a manufacturing apparatus for a color filter, in which an ionized wind 45 is provided onto a substrate 42 before an ink jet head 43 discharges a liquid material onto the substrate 42. The ionized wind applied after discharge of a liquid material provides benefits in that it avoids variability of functions of constituent elements caused by loss of uniformity of film thickness, prevents loss of reliability, and prevents non-uniformity of panel luminance.

Further, Akahira neither discloses nor suggests providing an ionized wind onto a substrate. Accordingly, amended claim 8 would not have been obvious in view of the teachings of Makoto and Akahira. That is, the proposed combination of Makoto and Akahira fails to teach each step of the claimed method of providing an ionized wind onto the substrate after discharging liquid material onto the substrate. Because this step of the claimed invention is neither taught nor suggested by the prior art references, Applicant respectfully asserts that claims 8 and 12 would not have been obvious.

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Makoto (JP 11-281810). This rejection is respectfully traversed.

Claim 9 has been amended to recite that the ionized wind producing unit provides the ionized wind onto the substrate at least after the discharging head discharges the liquid material onto the substrate. In contrast, as stated above, Makoto discloses a method and apparatus in which an ionized wind is provided onto the substrate before the ink jet head discharges a liquid material onto the substrate. As such, Applicant respectfully asserts that Makoto fails to teach or suggest each element of amended claim 9. Because the ionized wind is provided to the substrate before the

discharge of the liquid material onto the substrate, Makoto does not teach the claimed method.

Claim 10 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Mizutani et al. (U.S. Pat. No. 6,439,712). This rejection is respectfully traversed.

As stated above under the rejection under 35 U.S.C. § 102, Mizutani fails to teach an ionized wind producing unit for providing an ionized wind onto the substrate. In contrast, Mizutani merely teaches the blowing of hot air towards a substrate. The blowing of hot air, however, falls short of the claimed ionized wind producing unit and ionized wind that is blown towards the substrate. Because Mizutani is completely silent with respect to an ionized wind, Applicant respectfully asserts that claim 10 would not have been obvious in view of Mizutani.

Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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By: 
G. Gregory Schivley, Reg. No. 27,382
Bryant E. Wade, Reg. No. 40,344

HARNESS, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GGS/BEW/JAH